

Common Reversal Agents in Ambulatory Surgery Centers

Reversal Agent	Use	Common Agents Reversed	Dosage
Naloxone (Narcan)	Reversal of opioid overdose	Fentanyl, Morphine, Oxycodone	0.4 to 2 mg IV, may repeat every 2 to 3 minutes as needed
Flumazenil (Romazicon)	Reversal of benzodiazepines	Midazolam, Diazepam, Lorazepam	0.2 to 0.5 mg IV over 15 seconds, may repeat at 60-second intervals, max 3 mg
Sugammadex (Bridion)	Reversal of neuromuscular blockade	Rocuronium, Vecuronium	2 to 4 mg/kg IV, depending on depth of neuromuscular blockade
Neostigmine	Reversal of non-depolarizing muscle relaxants	Rocuronium, Vecuronium, Atracurium	0.03 to 0.07 mg/kg IV, usually given with glycopyrrolate or atropine
Atropine	Adjunctive therapy with reversal agents	Used with Neostigmine to reverse bradycardia induced by anesthetic agents or other conditions	0.5 to 1 mg IV, may repeat every 3 to 5 minutes as needed
Glycopyrrolate (Robinul)	Reversal of muscarinic effects associated with neostigmine use	Muscarinic effects when reversing with neostigmine	0.1 to 0.2 mg IV, usually given with neostigmine
Methylene Blue	Reversal of methemoglobinemia caused by Cetacaine	Cetacaine-induced methemoglobinemia	1 to 2 mg/kg IV over 5 minutes, may repeat if necessary

Notes:

- Sugammadex (Bridion) should not be used to reverse the effects of succinylcholine.

References:

- Bridion (Sugammadex) Package Insert, 2024
- Drug Reference Guide, 2024
- Methylene Blue Package Insert



Quiz

Question 1: Which reversal agent is used to reverse opioid overdoses?

- A) Flumazenil (Romazicon)
- B) Naloxone (Narcan)
- C) Sugammadex (Bridion)
- D) Atropine

Question 2: What is the typical dosage of Naloxone (Narcan) for opioid overdose reversal?

- A) 0.2 to 0.5 mg IV over 15 seconds
- B) 2 to 4 mg/kg IV
- C) 0.4 to 2 mg IV, may repeat every 2 to 3 minutes as needed
- D) 0.5 to 1 mg IV, may repeat every 3 to 5 minutes as needed

Question 3: Which agents are commonly reversed by Flumazenil (Romazicon)?

- A) Fentanyl, Morphine, Oxycodone
- B) Midazolam, Diazepam, Lorazepam
- C) Rocuronium, Vecuronium, Atracurium
- D) Succinylcholine, Mivacurium

Question 4: Sugammadex (Bridion) is used to reverse which type of drugs?

- A) Opioids
- B) Benzodiazepines
- C) Neuromuscular blockers
- D) Muscarinic effects

Question 5: What is the recommended dosage of Sugammadex for reversing neuromuscular blockade?

- A) 0.4 to 2 mg IV
- B) 2 to 4 mg/kg IV, depending on the depth of neuromuscular blockade
- C) 0.03 to 0.07 mg/kg IV
- D) 1 to 2 mg/kg IV over 5 minutes

Question 6: Which agent is given alongside Neostigmine to prevent bradycardia?

- A) Flumazenil
- B) Methylene Blue
- C) Atropine
- D) Naloxone

Question 7: Which agent is used to treat methemoglobinemia induced by Cetacaine?

- A) Neostigmine
- B) Sugammadex
- C) Methylene Blue
- D) Atropine



Quiz Answers:

1. B) Naloxone (Narcan)
2. C) 0.4 to 2 mg IV, may repeat every 2 to 3 minutes as needed
3. B) Midazolam, Diazepam, Lorazepam
4. C) Neuromuscular blockers
5. B) 2 to 4 mg/kg IV, depending on the depth of neuromuscular blockade
6. C) Atropine
7. C) Methylene Blue